Catalogue of American Amphibians and Reptiles.

ASHTON, RAY E., JR. AND RICHARD FRANZ. 1979. *Bufo quercicus*.

Bufo quercicus Holbrook
Oak toad

Bufo quercicus Holbrook, 1840:109. Type-locality, "Charleston, South Carolina and Smithville, North Carolina," restricted by Schmidt (1953) to Charleston, South Carolina. No holotype designated.

Chilophryne dialopha Cope, 1862:341. Type-locality, "Sandwich Islands" (Hawaiian Islands). Type specimen given as "Museum Academy, Philada.," but not listed by Malnate (1971), collected by John K. Townsend. Listed in the synonymy of *B. quercicus* by Cope (1886:516) with the annotation "erroneous locality."

Bufo dialophus: Boulenger, 1882:319.

• CONTENT. No subspecies are recognized.

• DEFINITION. The smallest *Bufo* in the New World, with a maximum reported snout-vent length of 32 mm (Wright and Wright, 1942, 1949). Head short, snout pointed. Cranial crests divergent and inconspicuous ending in a transverse series of raised warts; parotoids tear-shaped and descending on sides to inferior edge of tympanum. Post-orbital ridge in contact with tympanum.

Dorsal color is brown to silvery gray with a mid-dorsal cream to orange stripe. On either side of the stripe there are 4 or 5 unconnected blotches that are darker than the background. Dorsal tubercles are evenly sized, rich brown to red. Arms and legs are banded with black. The ventral side is granular and creamy white to buff.

• DESCRIPTIONS. Adults are adequately described by Holbrook (1842), Cope (1889), Noble (1931), Wright (1932), Burt (1938), Wright and Wright (1942, 1949), Carr (1940), Duellman and Schwartz (1958), Carr and Goin (1959) and Conant (1975). Eggs are described by Wright (1932), Wright and Wright (1942, 1949). Tadpoles are described in Wright (1929, 1932), Wright and Wright (1942, 1949), and Volpe and Dobie (1959). Wright and Wright (1949) described the breeding call as a high pitched birdlike chirp or whistle. McAlister (1961) described vocal apparatus. Blair (1956) published a sonagram. The release call has not been reported.

• ILLUSTRATIONS. Burt (1938) has comparative drawings of the cranial crests. Wright (1932), Wright and Wright (1949) contain photographs of adults and eggs. Photographs of adults are in Harper (1931), Carr and Goin (1959), Leviton (1972), Conant (1975) and Mount (1975).

• DISTRIBUTION. Distribution is restricted to east and south of the Fall Line and east of the Mississippi River with a population occurring in the Florida parishes of Louisiana (Viosca, 1923). Other published records include Corrington (1929), Chamberlain (1939), and Schmidt (1924) for South Carolina; Myers (1924), Brimley (1940), Harper (1935), Brandt (1936), Engles (1949), and Depoe et al. (1961) for North Carolina; Harper (1935), Brandt (1936), Martof (1956, 1963), Brandt (1953) and Goodman (1958) for Georgia; Loennberg (1894), Carr (1940), Deckert (1914, 1921), and Ashton (1976, current list of county records) for Florida; de Rageot (1969), Dunn (1920), for Virginia; Allen (1932), Harper (1935), Smith and List (1955) for Mississippi. Burt (1938) included records for Alabama, Florida, Georgia, North and South Carolina. Wright and Wright (1942) reported records from Louisiana, North Carolina and South Carolina. Barbour (1930) and Neill (1957) attempted to interpret the origins and current distribution.

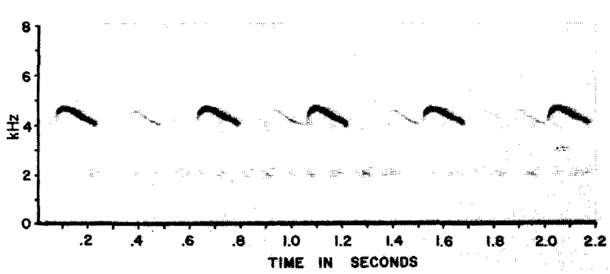


FIGURE. Audiospectrogram of call of *Bufo quercicus*: vicinity of Richmond Hill, Georgia, 8 August 1976, water 25.2°C, air 23.5°C; 45 Hz filter; Amer. Mus. Nat. Hist. Dept. Herpetology tape, specimen AMNH 95138.

• FOSSIL RECORD. Tihen (1962) reports the only known fossil record, an ilium (University of Florida 6573) from Reddick local fauna, Illinoian, Marion County, Florida.

• PERTINENT LITERATURE. General accounts are available in Conant (1975), Carr (1940, Florida), Carr and Goin (1959, Florida), Duellman and Schwartz (1958, south Florida), Mount (1975, Alabama), Wright (1932, Georgia), and Wright and Wright (1949). Phylogenetic aspects are discussed by Blair (1963, 1972), Kluge and Farris (1969), and Martin (1964, based on osteology). For general ecological and natural history information, see Brandt (1936), Hamilton (1955), Harper (1935), Wright (1932). Other topics include occurrence in salt water (Neill, 1958) seasonal activity (Carr, 1940; Einem and Ober, 1956), food (Hamilton, 1954, 1955; Crosby and Bishop, 1925), parasites (Hamilton, 1955), association with Florida mammals (Funderberg and Lee, 1968; Lee, 1968), and y-axis orientation (Goodyear, 1971). Morphological features are treated by Baldauf (1959) and Bhaduri (1953, urogenital system); sound production by Blair (1956) and McAlister (1961); biochemical and physiological aspects by Goin and Jackson (1965, hemoglobin values), Goin et al. (1968, DNA content) and Brattstrom (1963, acclimation); and limb regeneration by Scadding (1977).

• ETYMOLOGY. The specific name is from *quercus*, the Latin word for oak.

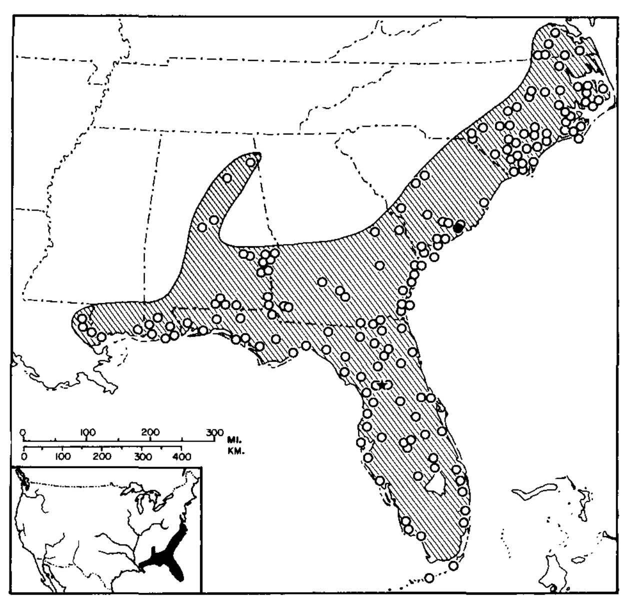
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MAP. Solid symbol marks the type-locality, hollow symbols mark other known localities. The star indicates a Pleistocene fossil locality.

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